WALLA WALLA BASIN HABITAT ENHANCEMENT 9604600

SHORT DESCRIPTION:

The goal of this project is to enhance natural production of existing summer steelhead and re-introduced spring chinook salmon in the Walla Walla River Basin. Land use practices in the water shed and existing fish and riparian habitat will be analyzed to identify and address the watershed-wide causative factors to reduced fish production capability. Remedial measures will be implemented to reduce or eliminate the detrimental land management activity where possible . Physical factors which limit production capability will be addressed through enhancement of instream and riparian habitats.

SPONSOR/CONTRACTOR: CTUIR
Confederated Tribes of the Umatilla Indian Reservation
Gary James, Fisheries Program Manager
Pendleton, OR 97801
541/276-4109

SUB-CONTRACTORS:

Various Construction Subcontracts: 1) fence contracts ; 2) heavy equipment contracts, 3) Umatilla County Weed Control, 4) survey contractors, and 5) Earth Conservation Corps/Umatilla Salmon Corps.

GOALS

GENERAL:

Supports a healthy Columbia basin, Maintains biological diversity, Maintains genetic integrity, Increases run sizes or populations, Provides needed habitat protection

ANADROMOUS FISH:

Habitat or tributary passage

NPPC PROGRAM MEASURE:

7.6;7.8

RELATION TO MEASURE:

This project targets the restoration of riparian areas thus improving water quality and quantity particularly the spawning, holding, and rearing habitats of salmonid fishes.

OTHER PLANNING DOCUMENTS:

Wy Kan Ush Me Wa Kush Wit, and The Walla Walla Subbasin Plan..

TARGET STOCK	LIFE STAGE	MGMT CODE (see below)
Walla Walla River /Carson Spring Chinook Salmon	Smolt/Adult	E, S
Walla Walla River native Summer Steelhead	Smolt/Adult	S, W,

AFFECTED STOCK	BENEFIT OR DETRIMENT
Native Resident (Bull trout, Redband, and Western Brook Lamprey) and Native Resident non-game species	Beneficial

BACKGROUND

Stream name:

Walla Walla River and Tributaries

LAND AREA INFORMATION

Subbasin:

Walla Walla

Land ownership:

Private

Acres affected:

1300 square miles in Walla Walla Watershed

HISTORY:

Project started in 1997.

BIOLOGICAL RESULTS ACHIEVED:
No results at this time. Project is a key component of the overall Walla Walla Basin watershed/fisheries restoration program.

PROJECT REPORTS AND PAPERS:
No reports at this time - project started in 1997.

ADAPTIVE MANAGEMENT IMPLICATIONS:
Habitat enhancements implemented under this project are anticipated to result in the following benefits: 1) increased water table saturation zones and instream flow levels during summer months, 2) slower water velocities and narrower stream channels, 3) more diverse native riparian vegetation communities to assist with bank stabilization, provide recruitable wood for instream cover, increase shading, increase insect drop and filter sediments. These combined benefits will aid anadromous salmonids by improving overall water quality, increasing and diversifying fisheries habitat and increasing potential food sources (macroinvertebrates). Project results will be monitored, toured, and coordinated with entities listed under "opportunities for cooperation".

PURPOSE AND METHODS

SPECIFIC MEASUREABLE OBJECTIVES:
This project is expected to increase the natural productivity of summer steelhead and eventually spring chinook in the Walla Walla Basin by improving spawning, incubation, and juvenile rearing habitat. Specific measurable project results would include increased shading and bank stability and decreased water temperature and streambank erosion.

CRITICAL UNCERTAINTIES:
A critically impacted life history stage currently affecting the natural productivity of summer steelhead (and potential spring chinook) is juvenile rearing (egg disposition to smolting). This and other projects (listed above) addressing additional life history stages will be necessary to implement a comprehensive Walla Walla Basin fish restoration program. Specific outcome may be affected by the activities of adjacent landowners, flood potential; and level of landowner cooperation.

BIOLOGICAL NEED:
The native summer steelhead run in the Walla Walla River is currently in a severely depressed state due in part to degraded habitat conditions resulting from past and present land use activities throughout the watershed. The Northeast Oregon Hatchery (NEOH) project developed hatchery facility plans for enhancement of summer steelhead and re-establishment of spring chinook in the upper Walla Walla and Touchet Rivers. Delay of this project may result in further decline of the wild summer steelhead population and limit the effectiveness of the ongoing spring chinook restoration efforts. This project will help maintain and restore critical riparian habitants for resident and anadromous salmonid fishes. Specifically, holding, spawning, and rearing conditions for anadromous and resident fishes will improve as a result of this project.

HYPOTHESIS TO BE TESTED:
N/A

ALTERNATIVE APPROACHES:
Purchase of properties throughout the basin is an alternative approach. However, this approach requires increased funding thus making it prohibitive at this time. Land acquisition should remain a viable option however, because it secures/protects properties indefinitely which ultimately is more cost effective.

JUSTIFICATION FOR PLANNING:
N/A

METHODS:
The goal of this project is to enhance natural production of existing summer steelhead and re-introduced spring chinook salmon in

the Walla Walla River Basin through habitat protection and restoration. Land use practices in the watershed and existing fish and riparian habitat will be analyzed to identify and address the watershed-wide causative factors to reduced fish production capability. Remedial measures will be implemented to reduce or eliminate the detrimental land management activity where possible. Physical factors which limit production capability will be addressed through enhancement of instream and riparian habitats. Landowner cooperation may limit the proposed methods in certain instances.

PLANNED ACTIVITIES

SCHEDULE:

Planning Phase **Start** 1997 **End** On-going **Subcontractor**

Task 1) Inventory existing instream and riparian habitats; 2) Identify existing land use practices impacting habitat capability (mostly completed by the plan Guidelines for Watershed Restoration in the Walla Walla River Basin, 1996); 3) Develop scoping groups comprised of local land owners, sportsman clubs and resource agencies to develop solutions to land use problems in the Walla Walla Watershed; 4) Implement protection/restoration measures including, but not limited to, fencing of critical areas, long term leases instream habitat structures, riparian plantings.

Implementation Phase **Start** 1997 **End** On-going **Subcontractor**

Task 4) Implement protection/restoration measures including, but not limited to, fencing of critical areas, long term leases instream habitat structures, riparian plantings. Continue BPA funding to maintain existing habitat improvements and initiate new instream/riparian enhancement projects throughout the Walla Walla River Basin.

O&M Phase **Start** 1998 **End** ongoing **Subcontractor**

Task Maintain habitat enhancement project areas. The physical condition of all improvements and general stream hydraulics will be evaluated in project areas following spring high flow events to determine effectiveness and prescribe maintenance as needed.

PROJECT COMPLETION DATE:

On-going

CONSTRAINTS OR FACTORS THAT MAY CAUSE SCHEDULE OR BUDGET CHANGES:

Landowner cooperation and in-stream permit approvals.

OUTCOMES, MONITORING AND EVALUATION

SUMMARY OF EXPECTED OUTCOMES

Expected performance of target population or quality change in land area affected:

Current natural production of summer steelhead from the Walla Walla River Basin is estimated at 100,000 smolt annually. Subbasin Plan goals are to double this number through a combination of passage improvements and habitat enhancements. Spring chinook are planned for reintroduction with a natural production goal (Subbasin Plan, 1990) of 400,000. Meeting these goals and supporting the additional hatchery released fish will depend in part on the enhancement and protection of habitat in the basin.

Present utilization and convservation potential of target population or area:

All livestock will be excluded from habitat enhancement project areas. Continued livestock exclusion and/or modification of grazing practices will be required for several decades to fully recover fisheries habitat potential.

Assumed historic status of utilization and conservation potential:

Historically, basin supported several species of salmon in addition to resident fish population. All species of salmon now extinct.

Long term expected utilization and conservation potential for target population or habitat:

Reintroduce salmon to the Walla Walla Basin and restore healthy populations of summer steelhead. Restoration goals are 11,000

summer steelhead and 5,000 spring chinook.

Contribution toward long-term goal:
Project will protect/restore critical riparian sections of the basin.

Indirect biological or environmental changes:
Improved water quality/quantity, increased holding, spawning & rearing potential for fishes.

Physical products:
New Project -N/A

Environmental attributes affected by the project:
Improved water quality/quantity, increased holding, spawning & rearing potential for fishes.

Changes assumed or expected for affected environmental attributes:
A naturally producing population of spring chinook salmon and improved population of summer steelhead.

Measure of attribute changes:
New project - no monitoring has been done at this time.

Assessment of effects on project outcomes of critical uncertainty:
A comprehensive fish passage and natural production assessment is anticipated (similar to Umatilla Basin) following completion of several ongoing Walla Walla Basin fisheries restoration projects.

Information products:
Project reports will report miles of projects completed, water temp changes, resident fish population changes, photopoint, water flows, riparian condition.

Coordination outcomes:
Project will coordinate closely with various state, federal, and local groups.

MONITORING APPROACH
The goal of this project is to enhance natural production of existing summer steelhead and re-introduced spring chinook salmon in the Walla Walla River Basin. Land use practices in the watershed and existing fish and riparian habitat will be analyzed to identify and address the watershed-wide causative factors to reduced fish production capability. Remedial measures will be implemented to reduce or eliminate the detrimental land management activity where possible. Physical factors which limit production capability will be addressed through enhancement of instream and riparian habitats.

Provisions to monitor population status or habitat quality:
This project will work closely with resource agencies within the basin on natural production monitoring, and habitat needs as they pertain to salmonid fishes.

Data analysis and evaluation:
Data will be analyzed by project biologist and evaluated.

Information feed back to management decisions:
Through public scoping meetings and inter-agency communication. Implementation measures and O & M may be modified if objectives are not being met.

Critical uncertainties affecting project's outcomes:

Public education may increase landowner cooperation.

EVALUATION

Photopoints, water temperatures, riparian health, population estimates for fishes, habitat-type changes, numbers of pools, glides, etc. stream channel narrowing, increased channel shading and macroinvertebrate densities and community.

Incorporating new information regarding uncertainties:

Information that affects the project will be incorporated into the overall plan for the Walla Walla Basin..

Increasing public awareness of F&W activities:

Through public scoping meetings, landowner communication, landowner participation, visual observation of successful projects, public tours, slide presentations to special interest groups.

RELATIONSHIPS

RELATED BPA PROJECT	RELATIONSHIP
5506600 9990071 9990069 8805302 9606400 Adult Fish Passage Improvement in Walla Walla Basin Juvenile Screens and Smolt Traps in Walla Walla Basin Northeast Oregon Hatchery - Walla Walla Component Habitat Restoration	All projects are part of a comprehensive Walla Walla Basin watershed/fisheries restoration program. They will compliment this project by adding more habitat enhancement, juvenile and adult passage improvements, and hatchery programs.

RELATED NON-BPA PROJECT	RELATIONSHIP
Walla Walla Basin Project - US Army COE	Assist with adult passage improvements and develop/implement flow enhancements
Walla Walla Basin Project - US BOR	Develop/implement instream flow enhancement
Habitat Restoration, WDFW	Adds additional habitat enhancement

OPPORTUNITIES FOR COOPERATION:

Considerable multi-entity coordination is already ongoing in the Walla Walla Basin. A plan, "Guidelines for Watershed Restoration in the Walla Walla River Basin" is cooperatively being developed by the Umatilla Tribe and the three soil and water conservation districts in the Walla Walla Basin is expected to be finalized in early 1997. The draft plan has already been coordinated with the participating agencies and landowners. At this time, project cooperators/landowners and funding are needed to implement necessary projects. This project is dependent upon other fish restoration program. Adult and juvenile fish passage enhancement projects are already ongoing.

Habitat enhancement projects in the Walla Walla River watershed are being planned, coordinated, and implemented by the Walla Walla Watershed Council, the Oregon Department of Fish and Wildlife, the Washington Dept. of Fisheries and Wildlife, the Confederated Tribes of the Umatilla Indian Reservation, and the three Soil and Water Conservation Districts in the Walla Walla Basin.

The US Army COE and the US Bureau of Reclamation in coordination with state and tribal fisheries managers are investigating opportunities to augment low instream in the Walla Walla River Basin.

BPA is funding construction of a hatchery facility on the South Fork Walla Walla. CTUIR will operate Phase I for Umatilla Basin adult spring chinook spawning and holding beginning in 1997. Phase II will provide for summer steelhead and spring chinook production for the Walla Walla Basin and is expected to be implemented in 1999.

COSTS AND FTE

1997 Planned: $200,000

FUTURE FUNDING NEEDS:

FY	$ NEED	% PLAN	% IMPLEMENT	% O AND M
1998	$215,000	50%	45%	5%
1999	$230,000	40%	50%	10%
2000	$245,000	30%	50%	20%
2001	$260,000	30%	50%	20%
2002	$275,000	30%	50%	20%

PAST OBLIGATIONS (incl. 1997 if done):

FY	OBLIGATED
1996	$99,203
TOTAL:	$99,203

Note: Data are past obligations, or amounts committed by year, not amounts billed. Does not include data for related projects.

OTHER NON-FINANCIAL SUPPORTERS:
Washington Dept of Fish & Wildlife, Natural Resource Conservation Service, Walla Walla Watershed Council, Walla Walla Cons. District, Col. County Cons. District.

LONGER TERM COSTS:
Expected annual costs of 300,000 to 400,000 - costs may be higher if emphasis switches to land acquisition.

1997 OVERHEAD PERCENT: 34%

HOW DOES PERCENTAGE APPLY TO DIRECT COSTS:
Overhead rates apply to total project costs, with the exception of sub-contracts developed for project implementation.

CONTRACTOR FTE: FTE = 1.5

SUBCONTRACTOR FTE:
Two to five (varies depending on subcontractors requirements, number of projects type of project and cost of project).